FriendlyNet book Page i Friday, December 4, 1998 10:58 AM

FriendlyNet™ PC Card

Dual Platform
for Macintosh™ and PC notebooks

Installation Guide and User's Manual

Asanté Technologies, Inc.
821 Fox Lane
San Jose, CA 95131

December 1998

Part Number 06-00254-02

Copyright Notice

Copyright ©1996 by Asanté Technologies, Inc.

All rights reserved. No part of this manual, or any associated artwork, software, product design or design concept, may be copied, reproduced or stored, in whole or in part, in any form or by any means mechanical, electronic, optical, photocopying, recording or otherwise, including translation to another language or format, without the express written consent of Asanté Technologies, Inc.

Trademarks

Asanté Technologies and FriendlyNet are trademarks of Asanté Technologies, Inc.
Apple, AppleShare, AppleTalk, PowerBook, and Macintosh are registered trademarks of Apple Computer, Inc. Ethernet is a registered trademark of the Xerox Corporation, Inc. EtherPeek is a trademark of The AG Group.
All brand names and products are trademarks or registered trademarks of their respective holders.

LIMITED WARRANTY

This Asanté FriendlyNet PC Card has a limited lifetime warranty which applies to the original purchaser of the product.The accompanying 10T/TN cable or 10T cable has a one-year warranty.

Asanté Technologies, Inc. warrants that the FriendlyNet PC Card will be free from defects in title, materials, and manufacturing workmanship. If the FriendlyNet PC Card is found to be defective, then, as your sole remedy and as the manufacturer's only obligation, Asanté Technologies, Inc. will repair and replace the product provided that (1) you call Asanté Technologies, Inc. for a Returned Merchandise Authorization (RMA) number, that (2) you clearly write this RMA number on the outside of the package, and that (3) you return it, postage prepaid, during the warranty period.This warranty is exclusive and is limited to the Asanté FriendlyNet PC Card.

This limited lifetime warranty shall not apply to FriendlyNet PC Card products that have been subjected to abuse, misuse, abnormal electrical or environmental conditions, or any condition other than what can be considered normal use.

Note: The warranty card must be filed with Asanté Technologies within 30 days after the date of purchase.

WARRANTY DISCLAIMERS

Asanté Technologies, Inc. makes no other warranties, express, implied, or otherwise, regarding the FriendlyNet PC Card, and specifically disclaims any warranty for merchantability or fitness for a particular purpose.

The exclusion of implied warranties is not permitted in some states and exclusions specified herein may not apply to you.This warranty provides you with specific legal rights.There may be other rights you have which vary from state to state.

Limitation of Liability

The liability of Asanté Technologies, Inc. arising from this warranty and sale shall be limited to a refund of the purchase price. In no event shall Asanté Technologies, Inc. be liable for costs of procurement of substitute products or services, or for any lost profits, or for any consequential, incidental, direct or indirect damages, however caused and on any theory of liability, arising from this warranty and sale.

FriendlyNet book Page iii Friday, December 4, 1998 10:58 AM

Table of Contents

Introduction 1

The FriendlyNet PC Card 1

Features 1

Installation 2

Installation Overview 2

Software Installation - Windows NT 4.0 3

PCMCIA Services Verification 3

Software Installation - Windows 95/98 8

Hardware Setup 11

Connecting to Apple Networks 13

Working with Global Village Modems 15

Removing the FriendlyNet PC Card 17

Hardware 17

Software 17

Troubleshooting 19

Troubleshooting Tips for the FriendlyNet PC Card 19

1 Introduction

The FriendlyNet PC Card

Thank you for purchasing Asanté's FriendlyNet PC Card, an Ethernet adapter that connects any PC card-equipped PowerBook or PC notebook computer to an Ethernet network system.

Available with BNC and RJ-45 connectors for thin and 10BASE-T Ethernet cable, the FriendlyNet PC Card is hot-swappable, easy to install and remove, and provides communication with servers, printers and other network devices on an Ethernet cable system.

Features

- ❑ Installs in minutes with easy-to-use installation software
- ❑ Maintains network connection during the computer's energy-saving sleep mode
- ❑ Compliant with PCMCIA 2.1 Type II slots
- ❑ Supports most popular network operating systems
- ❑ Supports protocol analyzer software such as EtherPeek™
- ❑ Hot-swappable
- ❑ Compact and lightweight — quickly inserted and removed

Package Contents

- ❑ FriendlyNet PC Card
- ❑ Software Installation Disk
- ❑ Installation Guide/User Manual
- ❑ Warranty Registration Card
- ❑ RJ-45 Cable with a 15-pin connector (10BASE-T only)
- ❑ RJ-45/BNC T-connector (Combo only)

2

Installation

Installation Overview

This chapter describes the FriendlyNet PC Card and the procedures for installing and using it.

Installation of the FriendlyNet PC Card consists of three procedures:

- ❑ Software installation
- ❑ Hardware setup
- ❑ Connecting to the network

Software Installation - Windows NT 4.0

PCMCIA Services Verification

1 Before beginning installation of the FriendlyNet PC Card, make sure that PCMCIA services are enabled on your computer.

2 Select **Devices** from the Control Panel as shown in Figure 2-1.

Figure 2-1 Selecting Devices Icon in Control Panel

3 In the Devices Panel, scroll down the Device list to the PCMCIA device. The Status should be **Started** and the Startup Type should be **Boot**. If this is not how PCMCIA is configured, click **Startup**, then set the Startup Type to **Boot** and click **OK**.

Network Driver Installation

Use the following procedure to install the network driver:

1. Shutdown the computer to the power-down state.
2. Insert the FriendlyNet PC Card into the PC Card slot in the computer.
3. Power-up the computer.
4. Select **Network** from the Control Panel.The Network panel appears.

Figure 2-2 The Adapters tab in the Network Control Panel

5. Select the Adapters tab and click **Add.**

6 In the Select Network Adapter screen, click **Have Disk.**

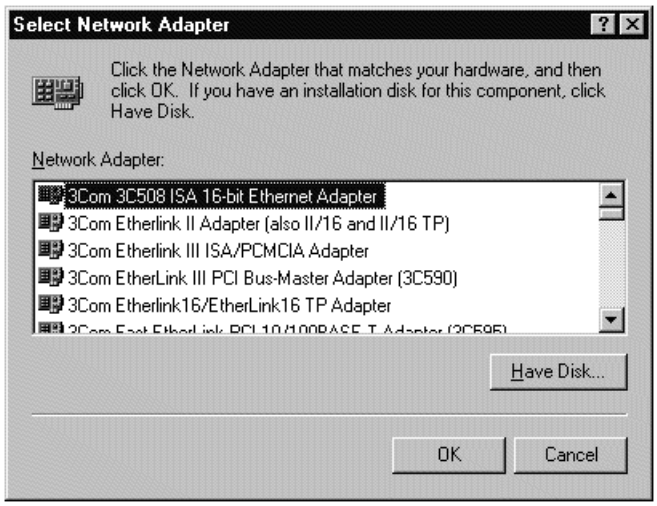
Select Network Adapter
Click the Network Adapter that matches your hardware, and then click OK. If you have an installation disk for this component, click Have Disk.
Network Adapter:
3Com 3C508 ISA 16-bit Ethernet Adapter
3Com Etherlink II Adapter (also II/16 and II/16 TP)
3Com Etherlink III ISA/PCMCIA Adapter
3Com EtherLink III PCI Bus-Master Adapter (3C590)
3Com Etherlink16/EtherLink16 TP Adapter
Have Disk...
OK
Cancel

Figure 2-3 The Select Network Adapter Screen

7 When prompted, insert the Asanté FriendlyNet PC Card Installation Disk and make sure the specified path is correct; for example, A:\.

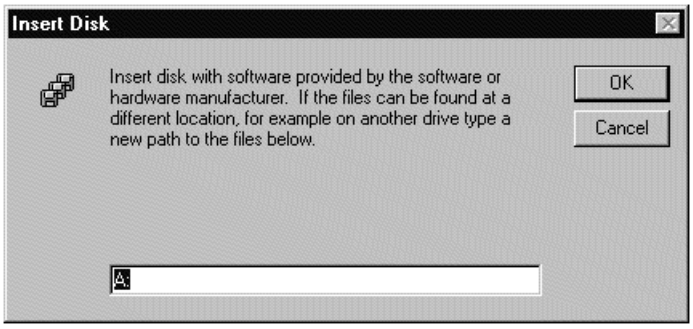
Insert Disk
Insert disk with software provided by the software or hardware manufacturer. If the files can be found at a different location, for example on another drive type a new path to the files below.
OK
Cancel
A:

Figure 2-4 Insert Disk Screen

8 When the disk is inserted and you have checked the path, click **OK**.

9 In the Select OEM Option screen, select **ASANTE Friendly-Net PC Card** and click **OK**.

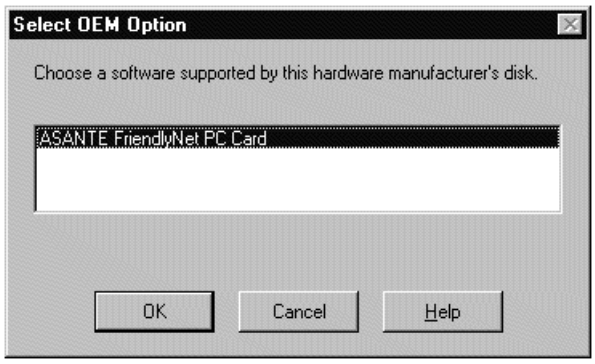

Figure 2-5 Select OEM Option Screen

10 In the Asanté FriendlyNet Setup screen, choose appropriate settings for your site.

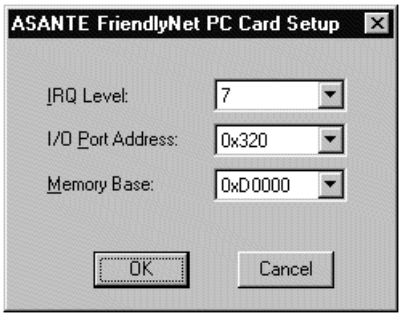

Figure 2-6 Specifying settings in the Card Setup screen

11 When you are satisfied with these settings, click **OK**.

12 In the Network screen check to see that the ASANTE FriendlyNet PC Card is listed, then click **Close**. If the FriendlyNet PC card icon does not appear on the screen, refer to the troubleshooting information on page 4-23 for help.

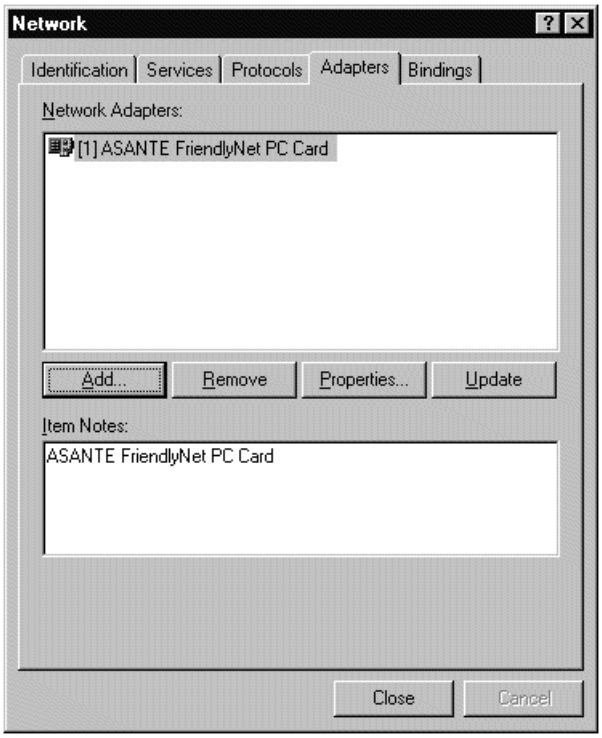

Figure 2-7 Updated Network screen

13 When the Network Settings Change screen is displayed, remove the FriendlyNet Installation Disk from the disk drive and click **Yes**.

The computer will shutdown and restart.

FriendlyNet book Page 8 Friday, December 4, 1998 10:58 AM

Software Installation - Windows 95/98

Overview

Installation on a computer running Windows 95 or Windows 98 is a "plug and play" operation: Windows will recognize the Asanté FriendlyNet PC Card when it is inserted and prompt for the Asanté software installation disk. When you insert this disk, the files will be copied to the hard disk and the computer will restart.

Important Notes

Please note the following information before starting the installation process.

The usual path for Windows 95 files installed on your hard disk is:

C:\WINDOWS\OPTIONS\CABS

The "CAB" files are compressed versions of the Windows 95 distribution files. Organization of the CD-ROM version of these files mirrors the diskette version. For example, if you are prompted to "Insert Disk 1…" the corresponding CD-ROM file and path would be:

c:\windows\options\cabs\disk1.cab

If you do not have the "CAB" files on your hard disk, you will need to use the Windows 95 installation CD-ROM.

Recommended Installation Steps

The following steps cover insertion of the card, detection of it, and responding to a prompt for a disk.

1 With the computer powered up and Windows 95 running, insert the Asanté FriendlyNet PC card into the PC card slot in the computer. Windows 95 will detect the insertion of the adapter. (For this to take place, PCMCIA support must be enabled. If it is not enabled, run the PCMCIA Wizard by double-clicking the PCMCIA icon in the Control Panel, so that Windows 95 will automatically detect the type of PCMCIA controller in the machine).

2 In the New Hardware Found screen, which specifies the Asanté FriendlyNet PC card, select **Driver from disk provided by hardware manufacturer** and click **OK**.

New Hardware Found
ASANTE-FriendlyNet PC Card
Select which driver you want to install for your new hardware:
Windows default driver
Driver from disk provided by hardware manufacturer
Do not install a driver (Windows will not prompt you again)
Select from a list of alternate drivers
OK
Cancel
Help

Figure 2-8 Selecting Driver option in New Hardware Found screen

3 When the Install from Disk screen is displayed, insert the Asanté Installation disk and verify the specified path (for example, A:\).

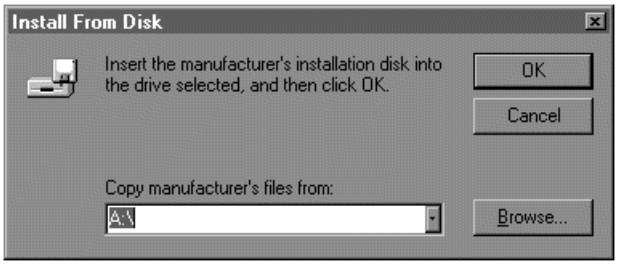

Figure 2-9 Install from Disk screen

4 When you have inserted the disk and checked the path, click **OK**.

5 In the Select Device screen, choose the **ASANTE FriendlyNet PC Card** and click **OK**.

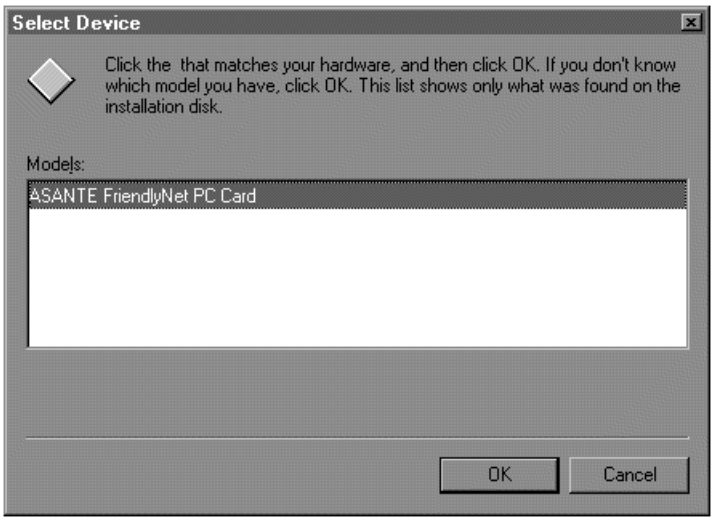
Select Device
Click the that matches your hardware, and then click OK. If you don't know which model you have, click OK. This list shows only what was found on the installation disk.
Models:
ASANTE FriendlyNet PC Card
OK
Cancel

Figure 2-10 Select Device screen

The Asanté files will be copied from the Installation Disk and Windows 95 will recognize the network functionality of the Asanté PC card.

Windows 95/98 Network Installation

In most cases Windows 95/98 network files will need to be installed, using CAB files from a diskette or CD-ROM. Some of these files may already be present on your system.

1 If prompted for Windows 95/98 networking files, insert the diskette or CD-ROM containing the CAB files, then click **OK** in the Insert Disk screen.

2 In the Copying Files screen, specify the path to the Windows 95/98 installation files - usually c:\windows\options\cabs (or D:\ if installing from a CD-ROM), then click **OK**.

Completing Windows 95/98 Installation

When the System Settings Change screen appears, remove the Asanté disk from the disk drive and click **Yes**. If Windows 95/98 networking was installed, the computer will restart.

Hardware Setup

10BASE-T PC Card

To connect the 10BASE-T PC Card:

1 Connect the 15-pin connector of the provided cable to the FriendlyNet PC Card's Slot Connector. See Figure 2-11.

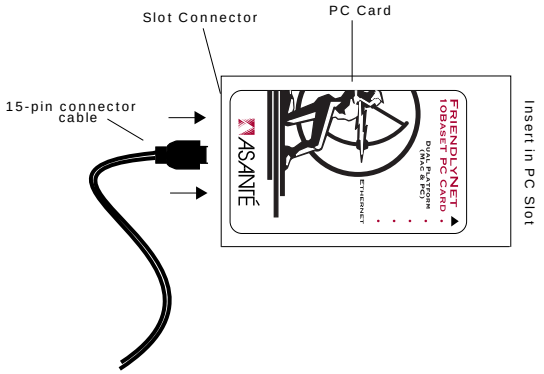

Figure 2-11 Connecting 15-pin connector to the FriendlyNet PC Card

2 Connect the RJ-45 end of the cable to the 10BASE-T hub in your network.

3 Skip to the next section *Connecting to the Network* on page 2-17 to continue with the installation.

Combo PC Card

The Combo PC Card contains a Network Media Module with a 15-pin connector cable and a BNC T-connector.

To connect the Combo PC Card:

1 Connect the 15-pin connector of the provided cable to the FriendlyNet PC Card.

2 For a 10-BASE-T network, connect a cable with RJ-45 connectors on both ends to the Network Media Module and the 10BASE-T hub. See Figure 2-12.

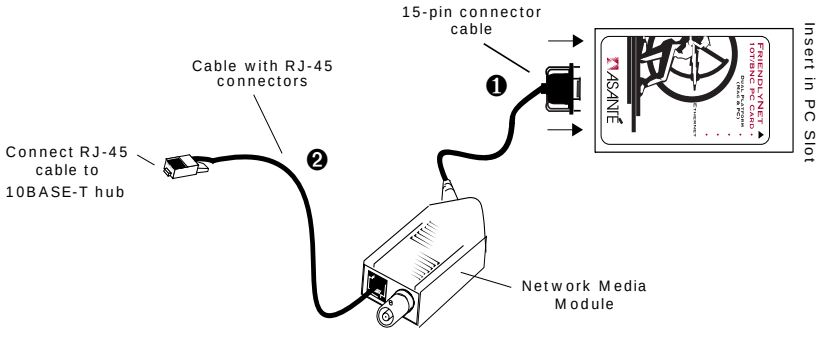

Figure 2-12 Connecting the FriendlyNet PC Card to a 10BASE-T network

3 For a thin coax network, connect the provided BNC T-connector to the Network Media Module's BNC connector. See Figure 2-13.

▲ If the PowerBook computer is the last node in the network, terminate one end of the T-connector with a 50 ohm terminator. Connect the other end of the T-connector to your network.

▲ If the PowerBook computer is not the last node in the network, connect both ends of the T-connector to other nodes in the network.

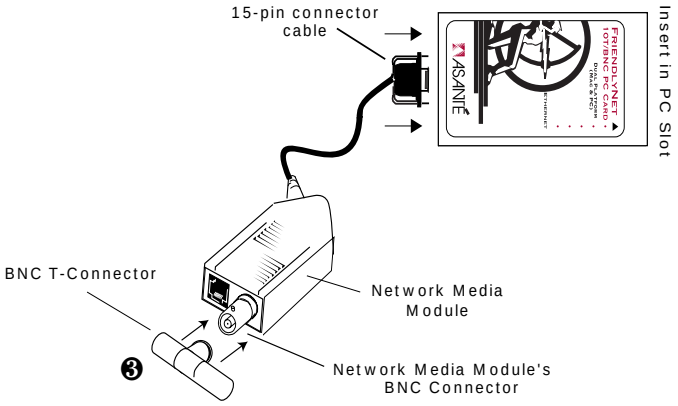

Figure 2-13 Connecting the FriendlyNet PC Card to a thin coax network

Connecting to Apple Networks

After inserting and connecting the FriendlyNet PC Card, log on to the network following the instructions below to connect to an AppleTalk or EtherTalk network.

1 After powering-up the computer, the FriendlyNet PC Card icon appears on the screen. If the icon does not appear on the screen, refer to troubleshooting on page 4-1 for help.

2 Double click the **FriendlyNet PC Card** icon (or open the Network Control Panel if you have Operating System 7.5.2 or less installed, or the AppleTalk Control Panel if you have Operating System 7.5.3 installed). For PowerBook 1400 and 5300 users:

- ❑ If you have Operating System 7.5.3 installed, select **Alternate Ethernet** in the Connect Via: drop-down menu box. The current zone should display the network segment to which you are connected.
- ❑ For prior versions of the Operating System, select the **EtherTalk Alternative** icon. Click OK to change from Local to EtherTalk

- For PowerBook 3400 and G3 users:
  - If you have Operating System 7.5.3 installed, select FriendlyNet in the Connect Via: drop-down menu box.The current zone should display the network segment to which you are connected.
  - Alternatively, you can double-check the FriendlyNet icon on your desktop.

3. Close the Control Panel, if you have opened it.
4. Open the **Apple** menu and select **Chooser**.
5. Click the **AppleShare** icon.
6. Select the network server to log on to the network.

FriendlyNet book Page 15 Friday, December 4, 1998 10:58 AM

Working with Global Village Modems

For the Asanté FriendlyNet PC Card and Global Village modem to work together properly, you must install the Global Village modem **before** the FriendlyNet PC Card.

If you have the FriendlyNet PC Card currently installed and working on your computer, you must re-install the FriendlyNet software after installing the Global Village modem.

See page 4-1 of this manual for more help on using Global Village modems with the FriendlyNet PC Card.

3

Removing the FriendlyNet PC Card

This chapter explains how to remove the FriendlyNet PC Card hardware and software from the computer.

Hardware

To remove the FriendlyNet PC Card:

▲ Make sure you exit from all network applications before ejecting the FriendlyNet PC Card from your computer.

1. Drag the FriendlyNet PC Card icon to the trash.
2. The computer automatically ejects the card from the slot.
3. Once the card is ejected, remove the 15-pin connector.

Software

To remove the FriendlyNet PC Card software driver:

1. Insert the FriendlyNet Software Installation Disk into the disk drive.
2. Double click the **Installer** icon.
3. Click **Continue** on the Asanté EtherTalk Installer splash screen.
4. Select **Custom Remove** from the drop-down menu in the Asanté Install window.
5. Click the **Asanté FriendlyNet PC Card Driver** in the list of drivers window.
6. Click **Remove**.
7. Click **Restart** when the "Removal was successful" window appears to complete the removal.

Removing the FriendlyNet PC Card

4

Troubleshooting

Troubleshooting Tips for the FriendlyNet PC Card

The following are suggestions to possible problems/error messages you may encounter when using the FriendlyNet PC Card.

ERROR MESSAGE: "The correct software you need to use the PC Card in the lower PC Card slot is not installed. Do you want to eject the card now?"

- ❑ If you receive this message after inserting the PC Card into the PowerBook, ignore the message by clicking on Cancel.

Two Global Village icons appear instead of one Global Village icon and one FriendlyNet PC Card icon when restarting the computer.

- ❑ This does not affect the functionality of the FriendlyNet PC Card.
- ❑ To reach the Network/AppleTalk Control Panel, use the Apple Menu.

Cannot Switch from the LocalTalk to the EtherTalk Alternative.

- ❑ Check if the Asanté FriendlyNet PC Card driver is installed.
- ❑ Check the connection between your PowerBook FriendlyNet PC Card and the network (link light should be green).

Cannot see the servers or other AppleTalk network neighbors in your network.

- ❑ Launch the Network Control Panel (Operating System 7.5.2 or less) or the AppleTalk Control Panel (Operating System 7.5.3).
- ❑ Switch from LocalTalk to EtherTalk Alternative again.
- ❑ Open the Choose menu and select AppleShare.

Cannot find FriendlyNet PC Card in EtherPeek "Interfaces Available" List.

- ❑ Make sure you are using EtherPeek version 3.x or higher.
- ❑ If a modem is inserted in the other PC slot, eject the modem prior to running EtherPeek on the FriendlyNet PC Card.

No "EtherTalk Alternative" icon in the Network Control Panel.

- ❑ Check if the Apple EtherTalk software is installed. If it is not, install the EtherTalk software using your MacOS System Software Installation diskettes. (You can use the "Floppy Disk Maker" application in the Utilities folder in your PowerBook.)

A

Technical Specifications

Standards Supported

PCMCIA Release 2.1. IEEE 802.3 Ethernet. FCC Class B certified.

Compatible Platforms

Macintosh PowerBooks with PCMCIA slots, including PowerBook 1900, 5300, 2400,3400 and G3 models. Most PC notebooks with PCMCIA slots supporting Windows 95, 98 and Windows NT Workstation.

Network Operating Systems

Apple System 7.5.2 or later, AppleShare, Novell NetWare for Macintosh, AppleTalk, and TCP/IP, Windows95/98 and Windows NT Workstation.

Media

10BASE-T and thin coax or 10BASE-T only.

Diagnostic LEDs

Traffic and link integrity (10BASE-T only).

Physical Dimensions

85mm x 54mm x 5mm (PC Card Type II form factor).

Operating Conditions

0˚ to 55˚ C, 10 to 90% humidity (non-condensing).

Warranty

Limited lifetime warranty for the FriendlyNet PC Card.

One-year warranty for the 10T/TN cable (part number 60-10062-00) and the 10T cable (part number 60-10063-00).

Support

Free technical support by phone, Fax, commercial on-line BBS.

Models

FNPB 10T (10BASE-T only)

FNPB 10T/TN (10BASE-T and thin coax)

B

Technical Support

Contacting Technical Support

To contact Asanté Technical Support:

Telephone	(800) 622-7464
Fax	(801) 566-3787
Bulletin Board Service (BBS)	(408) 432-1416
FTP Archive	ftp.asante.com
Internet Mail	support@asante.com
WorldWide Web Site	http://www.asante.com

Technical Support Hours

6:00 AM to 6:00 PM Mountain time USA, Monday - Friday.

ASANTÉ TECHNOLOGIES, INC., HEADQUARTERS, 821 FOX LANE, SAN JOSE, CA 95131

Phone: 408.435.8388, 800.662.9686 * Fax: 408.432.7511, APPLELINK: ASANTE.SALES,
e-mail address: sales@asante.com, Internet Web Site: http://www.asante.com

Asanté Technologies Asia T: 886 25162636, F: 886 25171999

Asanté Technologies Europe T: 441 81 332 1326, F: 441 81 332 1334.

©1996 Asanté Technologies, Inc., Asanté is a trademark of Asanté Technologies, Inc. All brand names and products are trademarks or registered trademarks of their respective holders. Part Number: 06-00254-02